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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,850	07/10/2003	Anne Gabriel	Q76275	9991

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EXAMINER
ELCENKO, ERIC J

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/615,850	GABRIEL ET AL.
	Examiner	Art Unit	
	Eric Elcenko	2617	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 July 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-37* is/are rejected.

7)☒ Claim(s) *4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Priority

1.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d),

which papers have been placed of record in the file.

Information Disclosure Statement

2.   The information disclosure statement (IDS) submitted was filed and is

being considered by the examiner.

Claim Rejections - 35 USC § 112

3.   Claim 24 recites the limitation "23" in line 3 of Claim 23. There is

insufficient antecedent basis for this limitation in the claim.

4.   Claim 24 recites the limitation "third step" in line 3 of Claim 24. There is

insufficient antecedent basis for this limitation in the claim.

5.   Claim 25 recites the limitation "fourth step" in line 4 of Claim 25. There is

insufficient antecedent basis for this limitation in the claim.

6.   Claim 27 recites the limitation "fifth step" in line 3 of Claim 27. There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.   Claim 1, 2 are rejected under 35 U.S.C. 102(e) as being anticipated by

Aboul-Magd et al. (U. S. Pat. No. 6,490,249)

In regard to Claim 1, Aboul-Magd et al. teaches an "Adaptive Connection

Admission Control Scheme for Packet Networks. Aboul-Magd et al. goes on to

disclose An adaptive method and apparatus for regulating connection admission

of traffic for networks, which includes a limiter that limits a volume of traffic

admitted to a network through a connection admission control (CAC) procedure;

and basing the connection admission control procedure at least in part on a pure

measurement CAC that is solely based on measurements of actual traffic levels

on the network. The connection admission control is based both on the pure

measurement-based CAC and on a pure mathematical-based CAC that is solely

dependent on user-supplied traffic parameters, thereby combining both types of

the CAC to form a hybrid admission criterion. Where the network offers different

services, managing link resources for CAC is effected by regulating the CAC

procedure based on capacities assigned to service bandwidth pools that are

defined for the different services offered by the network. (Abs) This profile is

supplied to the network at the set up phase in the form of a limited set of traffic

characteristics such as peak rate, sustained rate, and burst size. (Col 1, Ln 16-

29) development of an EBR algorithm requires the mapping of the traffic

parameters to an adequate statistical model and assumptions regarding the

architecture of the transmission scheduler of the node and the size of the

available buffer. For the CBR (constant bit rate) and premium services where the

traffic peak rate is of paramount importance, the traffic parameter of interest to

the EBR algorithm is usually the traffic peak rate. For VBR (variable bit rate)

services, the traffic parameters of interest are the peak rate, the average rate,

and the burst size. (Col 2, Ln 20-33)

In regard to Claims 2, 6, 8 and 9, Aboul-Magd et al. discloses a limited set

of traffic characteristics such as peak rate(max load), sustained rate(equivalent

bandwidth) and burst size. (Col 1, Ln 23-26)

In regard to Claims 3, 5, 7 and 10 Aboul-Magd et al. discloses for the CBR

(constant bit rate) and premium services where the traffic peak rate is of

paramount importance, the traffic parameter of interest to the EBR algorithm is

usually the traffic peak rate. For VBR (variable bit rate) services, the traffic

parameters of interest are the peak rate, the average rate, and the burst size.

(Col 2, Ln 26-32)

In regard to Claims 13 and 15, For VBR-like service, one EBR algorithm

that has seen wide use is the EGH (extended Gibbens-Hunt) algorithm [4]. EGH

algorithm assumes a FIFO (first-in-first-out) scheduler for the node and an

aggregate buffer of size B. The EGH algorithm maps the input traffic parameters to a two-state Markov-fluid model where a source alternates between active and idle states with exponentially distributed periods with parameters .alpha. and .beta. respectively. While being active, traffic is assumed to be generated with rate .lambda. units/s. With those assumptions, the EBR computed using the EGH algorithm for ATM-based networks is given by

EBR = (-[alpha + beta – gamma*lambda] + sqrt([alpha + beta – gamma*lambda]^2 + 4*gamma*beta*lambda)) / 2*gamma Where .gamma._=_-log(CLR)/B*Pr[W>0], and CLR is the QoS parameter in terms of cell loss rate, B is the buffer size available at the node, and P[W>0] is the probability that the combined rate of the active sources exceeds the link capacity (probability of a non-empty queue). (Col 2, Ln 43-60)

In regard to Claim 14, the invention describes a method and procedure of a hybrid CAC function that combines both the mathematical and the measurement aspects of the traffic. (Col 3, Ln 38-40)

Claims 17-27 are not being rejected for reasons of continuity in the Claimed subject matter. Different steps from step three to step 5 are claimed with dependencies going back to claims, which do not contain the previous step. The previous steps are referenced in current step claim and without proper reference back to have a flowing order of steps on which they build upon each other, the claims can not be reviewed until a correction of dependencies or

wording is changed to allow for the proper flow of step to step method based claiming.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 28-31, 33 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aboul-Magd et al. (U. S. Pat. No. 6,490,249) in view of Vilander et al. (U.S. Pub. No. 2004/0010609)

Aboul-Magd et al. does not disclose an AAL2 connection on an ATM virtual circuit at an Iub, IU-CS, or Iur interface in a UTRAN.

In regard to Claims 28-31, Vilander et al discloses AAL2 is a standard defined by ITU recommendation 1.363.2. An AAL2 packet comprises a three-octet packet header, as well as a packet payload. The AAL2packet header includes an eight-bit channel identifier (CID), a six-bit length indicator (LI), a five bit User-to-User indicator (UUI), and five bits of header error control (HEC). The AAL2 packet payload, which carries user data, can vary from one to forty-five octets. An object of the present invention, in one aspect, is utilization of Internet Protocol in lieu of the ATM protocol in the user plane protocol stacks for various interfaces (e.g., Iu-CS Interface, Iur Interface, and Iub Interface) of a radio access network such as UTRAN, and in another aspect is provision of a new

transport network layer protocol usable on these interfaces as well as on the Iu-PS Interface. (Para 14, 15)

It would have been obvious to one of ordinary skill in the art to modify Aboul-Magd et al. to include the AAL2 connection and following interfaces in order to have the ability to carry more information on multiple interfaces where a new network layer can be used.

Aboul-Magd et al. does not disclose a radio access element or for control at the interface of a CDMA system.

In regard to Claims 33 and 34, one example of a radio access network is the Universal Mobile Telecommunications (UMTS) Terrestrial Radio Access Network (UTRAN). The UTRAN is a third generation system, which is in some respects, builds upon the radio access technology known as Global System for Mobile communications (GSM) developed in Europe. UTRAN is essentially a wideband code division multiple access (W-CDMA) system. (Para 7)

I would have been obvious to one or ordinary skill in the art to modify Aboul-Magd et al. to include the method in a radio access element and as part of a CDMA system in order to allow for more versatility in use with multiple systems.

Aboul-Magd does not disclose the method in a base station controller, RNC, or as part of a base station or a packet-switched network.

In regard to Claim 32 and 35-37, a telecommunications system has a protocol architecture over an interface between nodes of the telecommunications

system, the protocol architecture including Internet Protocol as a protocol above

a link layer protocol in a transport network layer. The protocol architecture can be

used over one or more of several interfaces, including the interface between a

radio access network and a core network [Iu Interface]; the interface between

radio network controllers (RNCs) and the base stations (BSs) served thereby [Iub

Interface]; and the interface between a Source RNC (SRNC) and a Drift RNC

(DRNC) [Iub Interface]. A new XTP Protocol is proposed as another aspect of the

invention, which is usable in a protocol stack for the Iu-PS (packet switched)

implementation as well as over the Iu-CS, Iub and Iur Interfaces. (Abs)

It would have been obvious to one of ordinary skill in the art to modify

Aboul-Magd to include the method in base stations, a RNC, or a core network

element in order to allow for more efficient use of the method across an entire

system and not a single part giving more reliable and consistent results.

11.   Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Aboul-Magd et al. (U. S. Pat. No. 6,490,249) in view of Bjoerkman et al. (U.S.

Pub. 2005/0152272)

Aboul-Magd et al. does not disclose a memory for storing relevant data.

Bjoerkman et al. discloses the processing section 12 has a processor 22

and a memory 23, which contains programs and data to enable the connection

admission control of the present invention to be carried out.

It would have been obvious to one of ordinary skill in the art to modify Aboul-Magd et al to include a memory in order for quicker retrieval of information relating to a system without having to recalculate or re-measure all the pertinent information needed.

12.   Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aboul-Magd et al. (U. S. Pat. No. 6,490,249) in view of Kola et al. (U.S. Pub. No. 2004/0213165)

Aboul-Magd et al. does not disclose determining a best model for use.

Kola et al. discloses the model generator illustrated in FIG. 2 further comprises a traffic analyzer TA for analyzing characteristics of the traffic, and a model builder MB for building the port number specific statistical models based on the analyzed characteristics of the traffic. The model generator illustrated in FIG. 2 further comprises a general model builder GMB for building at least one general statistical model of the traffic. Said characteristics of the traffic comprise number and size of small packets at the start, number and size of small packets at the end, number and size of packet calls, inactivity period, and the presence of TCP slow start. The model is optimized as to be compared with having the "severest constraints." (Para 46)

It would have been obvious to one of ordinary skill in the art to modify Aboul-Magd to include a model builder as taught by Kola et al. in order to allow for a most efficient traffic model to be built when a standard model does not give the most accurate representation.

Allowable Subject Matter

13.   Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 4 is allowable over prior art because applicant claims a probability that the transmission time-delay will be greater than the maximum time-delay along with any other limitations found in the claim.

Conclusion

14.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 5,521,971 to Key et al.

U.S. Pat. No. 6,813,255 to Goderis et al.

U.S. Pub. No. 2002/0077113 to Spaling et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Elcenko whose telephone number is (571) 272-8066. The examiner can normally be reached on M-F   7:30 AM through 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax

phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

Information regarding the status of an application may be obtained from

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ee

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PRIMARY EXAMINER